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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/785,356

02/24/2004

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ADV7-H64

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04/19/2007

EXAMINER

MULL, FRED H

ART UNIT

PAPER NUMBER

3662

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/785,356	Applicant(s) KARLSSON ET AL.	
	Examiner Fred H. Mull	Art Unit 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-14 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1-2 and 4-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description and enablement requirements. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, and thus do not enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In claim 1, lines 14-15, it states "said computing device then estimates a future position of said transmitter in reference to said cross-over point". However, this is not disclosed nor enabled by the original disclosure. From p. 12, lines 10-17, it appears that the receiver moves relative to a stationary transmitter, in order to get a more exact position measurement for the transmitter. There is nothing in the original disclosure to suggest the transmitter is moving or the method can predict its future position.

The feature: "estimates a future position of said transmitter" (claim 1, line 16) was not present in the application as filed. It was introduced into claim 1 with the amendment of February 3, 2006, into Fig. 5 with the amendment of May 15, 2006, and

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into the specification with the amendment of December 28, 2006. Since there was no disclosure of this feature at filing, this feature is new matter, and not entitled to the filing date of this application. Applicant is encouraged to file a Continuation-In-Part.

The Examiner also fails to find basis for this feature in "Technique and Algorithm for Reducing Measurement Uncertainties in Emitter Location Systems" (60/449442), incorporated-by-reference on p. 11, lines 6-7.

The Examiner notes that 10/785353 was not incorporated-by-reference, and thus was not part of the current application's original disclosure. However, 10/785353 also fails to provide basis for the added subject matter. Applicant specifically refers to Fig. 6 in his arguments (p. 8, final ¶, line 7). The description of this figure, on p. 6, line 15 of the specification, refers to determining "a transmitter's position point" in the singular. On p. 13, lines 7 and 20-21, it is clear that it is the DF set that is being relocated. As was discussed at length in the prosecution history of 10/785353, Fig. 6 illustrates from the reference frame of the DF set, but there is no disclosure of the transmitter moving relative to an Earth-fixed reference frame as has been introduced in claim 1 and Fig. 5 of the current application.

Should all the additions determined to be new matter be determined proper, such as in a Continuation-In-Part application, all other rejections of claims 1-9 will be overcome. However, since these additions are considered new matter for the current applications, all other rejections of claims 1-9 are upheld based on the distinguishing factors pointed out by applicant are based on new matter. Based only upon the subject matter discloses at filing, the rejections are considered proper.

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2. Claims 1-2 and 4-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description and enablement requirements. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, and thus do not enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

According to p. 11 of the specification, lines 8-9, "A cross-over point is the intersection between the last best LOB data entry, and the newly arrived LOB."

However, this appears to contradict Fig. 5, where the cross-over point appears to be determined from the LOB's from two separate receivers.

Also, the term "connecting vector" is not used nor defined in this application. It is referred to in related application 10/785,353. However, from that application, the connecting vector should be perpendicular to the latest LOB, and the connecting vector does not appear to be perpendicular to the central line from 14D' in Fig. 5.

Drawings

3. Fig. 5, originally submitted May 15, 2006 and amended November 7, 2006, is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention.

Applicant is required to cancel the new matter in the reply to this Office Action.

Specification

4. The amendment filed April 5, 2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-2 and 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Hobson.

Liu discloses:

a mobile DF set, said set comprising a receiver for receiving incident signal transmissions (30A, Fig. 3);

a line of bearing (LOB) generating system in operative communication with said receiver and configured to generate lines of bearing responsive to said received signal transmissions, determining the position of a transmitter transmitting said transmissions from said lines of bearings, and a display means for displaying said determined position (Fig. 5; p. 3, 1st column, lines 20-36; ¶64, lines 6-30).

Liu fails to disclose displaying an indication of LOB error.

Hobson discloses that "systems which give a precise determination of latitude and longitude to the operator typically fail to provide the operator with information

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concerning the probable degree of accuracy of the determination." (col. 2, lines 3-7). It is especially important to understand the true nature of the position measurement when the locator is emergency services seeking someone during an emergency situation, as is the case in Liu (¶10-21).

Hobson further discloses:

an LOB error generating system in operative communication with said line of bearing generating system and configured to generate error factors related to said lines of bearing (Fig. 2; col. 4, lines 31-42; col. 6, line 61 to col. 7, line 6);

an probability overlay generating system in operative communication with said LOB error generating system and configured to generate an overlay probability map responsive to said error factors (Figs. 4-7; col. 8, lines 16-31); and

display means for visually displaying said lines of bearing (μ_1 - μ_3 , Figs. 4-7), said error factors and said overlay map (P_1 - P_{11}).

It would have been obvious to include the probability display feature of Hobson to the emergency position displaying system of Liu in order to give emergency services personnel a more accurate picture of where the person seeking emergency services might be, as motivated by Hobson (that "systems which give a precise determination of latitude and longitude to the operator typically fail to provide the operator with information concerning the probable degree of accuracy of the determination." (col. 2, lines 3-7).)

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6. Claims 1-2 and 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dupray in view of Hobson.

Dupray discloses:

a mobile DF set, said set comprising a receiver for receiving incident signal transmissions (148, Fig. 4);

a line of bearing (LOB) generating system in operative communication with said receiver and configured to generate lines of bearing responsive to said received signal transmissions, determining the position of a transmitter transmitting said transmissions from said lines of bearings, and a display means for displaying said determined position (col. 20, lines 51 to col. 21, line 10).

Dupray fails to disclose displaying an indication of LOB error.

Hobson discloses that "systems which give a precise determination of latitude and longitude to the operator typically fail to provide the operator with information concerning the probable degree of accuracy of the determination." (col. 2, lines 3-7). It is especially important to understand the true nature of the position measurement when the locator is emergency services seeking someone during an emergency situation, as is the case in Liu (¶10-21).

Hobson further discloses:

an LOB error generating system in operative communication with said line of bearing generating system and configured to generate error factors related to said lines of bearing (Fig. 2; col. 4, lines 31-42; col. 6, line 61 to col. 7, line 6);

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an probability overlay generating system in operative communication with said LOB error generating system and configured to generate an overlay probability map responsive to said error factors (Figs. 4-7; col. 8, lines 16-31); and

display means for visually displaying said lines of bearing (μ_1 - μ_3 , Figs. 4-7), said error factors and said overlay map (P_1 - P_{11}).

It would have been obvious to include the probability display feature of Hobson to the emergency position displaying system of Dupray in order to give emergency services personnel a more accurate picture of where the person seeking emergency services might be, as motivated by Hobson (that "systems which give a precise determination of latitude and longitude to the operator typically fail to provide the operator with information concerning the probable degree of accuracy of the determination." (col. 2, lines 3-7).

Allowable Subject Matter

7. Claim(s) 10-14 is/are allowed.
8. Claim(s) 1-2 and 4-9 would be allowable in a Continuation-In-Part application including the additions considered new matter in this application.

Response to Arguments

9. Applicant's arguments on p. 8-9, with respect to the rejection(s) of claims 10-14 over 35 USC 112 have been fully considered and are persuasive. The examiner finds basis for the connecting vector on p. 8, 2nd ¶ of "Technique and Algorithm for Reducing

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Measurement Uncertainties in Emitter Location Systems" (60/449442), incorporated-by-reference on p. 11, lines 6-7. The rejection(s) of these claims have been withdrawn.

10. Applicant's arguments on p. 8-9, with respect to the rejection(s) of claims 1-9 over 35 USC 112 have been fully considered but they are not persuasive.

The feature: "estimates a future position of said transmitter" (claim 1, line 16) was not present in the application as filed. It was introduced into claim 1 with the amendment of February 3, 2006, into Fig. 5 with the amendment of May 15, 2006, and into the specification with the amendment of December 28, 2006. Since there was no disclosure of this feature at filing, this feature is new matter, and not entitled to the filing date of this application. Applicant is encouraged to file a Continuation-In-Part.

The Examiner also fails to find basis for this feature in "Technique and Algorithm for Reducing Measurement Uncertainties in Emitter Location Systems" (60/449442), incorporated-by-reference on p. 11, lines 6-7.

The Examiner notes that 10/785353 was not incorporated-by-reference, and thus was not part of the current application's original disclosure. However, 10/785353 also fails to provide basis for the added subject matter. Applicant specifically refers to Fig. 6 in his arguments (p. 8, final ¶, line 7). The description of this figure, on p. 6, line 15 of the specification, refers to determining "a transmitter's position point" in the singular. On p. 13, lines 7 and 20-21, it is clear that it is the DF set that is being relocated. As was discussed at length in the prosecution history of 10/785353, Fig. 6 illustrates from the reference frame of the DF set, but there is no disclosure of the transmitter moving

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relative to an Earth-fixed reference frame as has been introduced in claim 1 and Fig. 5 of the current application.

Should all the additions determined to be new matter be determined proper, such as in a Continuation-In-Part application, all other rejections of claims 1-9 will be overcome. However, since these additions are considered new matter for the current applications, all other rejections of claims 1-9 are upheld based on the distinguishing factors pointed out by applicant are based on new matter. Based only upon the subject matter discloses at filing, the rejections are considered proper.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred H. Mull whose telephone number is 571-272-6975. The examiner can normally be reached on Monday through Friday from approximately 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fred H. Mull
Examiner
Art Unit 3662

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